



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,995	05/03/2006	Stijn Vancompernelle	016782-0358	4929

22428 7590 06/12/2008
FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

FREEMAN, JOHN D

ART UNIT	PAPER NUMBER
----------	--------------

1794

MAIL DATE	DELIVERY MODE
-----------	---------------

06/12/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/577,995	Applicant(s) VANCOMPERNOLLE ET AL.	
	Examiner John Freeman	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 7-9 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 10-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The examiner thanks Applicant for precisely pointing out where in the specification Applicant discusses the content of the previously unconsidered documents. The examiner cites the previously unconsidered documents on the included PTO-892 included with this Office Action to indicate they have been considered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6 and 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Redmond (US 3,522,139).

4. Redmond discloses a reinforced flexible article comprising steel wires (abstract). The wires make up cables or cords. Redmond twists monofilamentary structure together to form strands, which then make up the cords (col 2 ln 1-7). The diameter of the wires is less than 0.01 inch (254 microns), including 0.004 inch (102 microns) (col 1 ln 65-68).

5. For claims 1-6, barring evidence to the contrary, the examiner takes the position that Redmond's cord inherently satisfies the test, or otherwise possesses the properties disclosed by Applicant in the present claims.

6. For claims 10-13, the cord is placed in a rubber (i.e. elastomer) matrix (col 2 ln 65-67). The rubber matrix contains isocyanate (i.e. polyurethane) (col 3 ln 15-18).

Art Unit: 1794

7. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Sargent et al. (US 4,087,295).

8. Sargent et al. (hereafter Sargent) discloses a steel cord made from steel wire (col 1 ln 6-10). The cord comprises strands which in turn comprises a plurality of wires (col 2 ln 22-26). The diameters of the wires can be 0.5 mils (13 microns) (col 2 ln 3-7). The wires are combined together and twisted, with at least 2 turns per inch (claim 5) wherein 2 turns per inch equates to 78.7 turns per meter. Such a twisting density is close to at least one embodiment described by Applicant (see page 18, Table 3), which describes a cord with 71 twists per meter.

9. Therefore, barring evidence to the contrary, the examiner takes the position that Sargent's cord inherently satisfies the test , or otherwise possesses the properties disclosed by Applicant in the present claims.

10. Claims 1-6, 10 and 12-13 are rejected under 35 U.S.C. 102(b) as being anticipated by D'Haene et al. (US 5,843,583).

11. D'Haene et al. (hereafter D'Haene) disclose a steel cord for reinforcement of an elastomer (col 1 ln 5-6). The cord comprises filaments having a diameter of 0.04 mm (40 microns) (col 7 ln 44-46). D'Haene uses two sets of filaments, i.e. strands, each twisted together (col 3 ln 32-41).

12. For claims 1-6, barring evidence to the contrary, the examiner takes the position that D'Haene's cord inherently satisfies the test , or otherwise possesses the properties disclosed by Applicant in the present claims.

13. For claims 10 and 12-13, D'Haene coats the cord with an elastomer (col 1 ln 51-53).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claim 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sargent et al. (US 4,087,295) in view of Hughes et al. (4,123,894).

16. Sargent discloses steel cords as previously explained. Sargent also discloses that cords can be placed in flexible composites (col 1 ln 13-15).

17. Sargent is silent with regard to an elastomer coating.

18. Such coatings were well-known in the art at the time of the invention, however. For example, Hughes discloses wire ropes protected from corrosive conditions through plastic foam compositions (col 1 ln 5-8). Polyurethane elastomer is a suitable composition (col 5 ln 42-44).

19. At the time of the invention, it would have been obvious to one of ordinary skill in the art to enclose Sargent's cord in an elastomeric polyurethane coating to protect the cord from corrosive conditions.

20. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over D'Haene et al. (US 5,843,583) in view of Hughes et al. (4,123,894).

21. D'Haene discloses a steel cord for reinforcing an elastomer.

22. D'Haene is silent with regard to a polyurethane elastomer.

23. Polyurethane coatings were well-known in the art, however. For example, Hughes discloses wire ropes protected from corrosive conditions through plastic foam compositions (col 1 ln 5-8). Polyurethane elastomer is a suitable composition (col 5 ln 42-44).

Art Unit: 1794

24. At the time of the invention, it would have been obvious to one of ordinary skill in the art to enclose D'Haene's cord in an elastomeric polyurethane coating to protect the cord from corrosive conditions.

Response to Arguments

25. Applicant's arguments with respect to claims 1-6 and 10-13 have been considered but are moot in view of the new ground(s) of rejection.

26. Applicant's amendment of claim 1, which limits the "structural elongation on the return side of said twentieth load cycle of below 0.06%..." resolves the ambiguity of how the cord of the present application distinguishes itself over the prior art. The conventional cord having a structural elongation below 0.09%, which was discussed in the previous Office Action, does not have a structural elongation below 0.06%. The rejection under 35 USC 112 first paragraph is therefore withdrawn.

27. Applicant's arguments, see p15, second paragraph through p16, first paragraph, filed 20 February 2008, with respect to rejections under 35 USC 112, first paragraph have been fully considered and are persuasive. The rejection of claims 1-6 and 10-13 has been withdrawn.

Conclusion

28. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 1794

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Freeman whose telephone number is (571)270-3469. The examiner can normally be reached on Monday-Friday 7:30-5:00PM EST (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571)272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John Freeman
Examiner
Art Unit 1794

/John Freeman/
Examiner, Art Unit 1794

/Callie E. Shosho/
Supervisory Patent Examiner, Art Unit 1794